

=> d his

(FILE 'HOME' ENTERED AT 11:08:24 ON 02 APR 2006)

FILE 'INSPEC, COMPENDEX' ENTERED AT 11:10:13 ON 02 APR 2006

L1  
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1673 S (LINK OR HYPERLINK?) AND HEURISTIC  
2 S L1 AND COMMAND

18 S ((LINK OR HYPERLINK?) AND HEURISTIC)/TI

8 S DOCUMENT AND (LINK OR HYPERLINK?) AND HEURISTIC

3 S DOCUMENT AND (BROWSE? OR NAVIGAT?) AND (LINK OR HYPERLINK?) A

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NEWS 5 JAN 13 IPC 8 searching in IFIPAT, IFIUDb, and IFICDB  
NEWS 6 JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to  
INPADOC  
NEWS 7 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 8 JAN 17 IPC 8 in the WPI family of databases including WPIFV  
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property data  
NEWS 19 MAR 01 INSPEC reloaded and enhanced  
NEWS 20 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 21 MAR 08 X.25 communication option no longer available after June 2006  
NEWS 22 MAR 22 EMBASE is now updated on a daily basis  
  
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
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COST IN U.S. DOLLARS

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FULL ESTIMATED COST

ENTRY      SESSION  
0.63        0.63

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=> s (link or hyperlink?) and heuristic  
L1            1673 (LINK OR HYPERLINK?) AND HEURISTIC

=> s l1 and command  
L2            2 L1 AND COMMAND

=> d 1-2 ti, ab

L2    ANSWER 1 OF 2    INSPEC    (C) 2006 IET on STN  
TI    Tactical data **link** planning technique  
AB    The tactical data **link** system is a communication, navigation  
and identification system intended to exchange surveillance and C2 (  
**command** and control) information among various C2 platforms and  
weapon platforms to enhance the varied missions of each of the services.  
The tactical data **link** terminals operate in the 960 - 1215 MHz  
band, which is reserved on a worldwide basis for the safe operation of  
aeronautical radionavigation equipment. The tactical data **link**  
system must be planned and modelled on the condition of some specific  
restrictions or limitations during operations. A **heuristic**  
algorithm is described

L2    ANSWER 2 OF 2    COMPENDEX    COPYRIGHT 2006 EEI on STN  
TI    New path metric for survivable circuit switched routing.  
AB    The authors report a novel path metric for survivable circuit-switched  
routing. The distribution of physical assets in the network is assumed  
flat, and the network operates in a stressed environment with **link**  
and node failures. In addition, the traffic distribution is arbitrary as a  
function of space and time. The fundamental assumption driving this work is  
that 'delay,' both processing delay at a node and propagation delay, is  
insignificant to the degree that from a delay-only viewpoint, the total  
number of hops that comprise the path of the circuit is unimportant. A  
**heuristic** that attempts to completely avoid using capacity into or  
out of a node and generally defers blocking calls as long as possible is  
used. Three metrics have been studied: the shortest number of hops without  
regard for **link** utilization, the shortest number of hops  
considering links that have unused capacity, and a nonlinear  
utilization-sensitive metric. The performance under a variety of network  
conditions, such as equal- and unequal-capacity links, uniform and  
nonuniform traffic matrices, and ring, cube, and ADI-like air defense  
topologies, has been studied. Both transient and steady-state call-blocking  
performance has been obtained for the above **link** metrics with  
both a centralized router and a distributed routing algorithm, and an  
associated topology update strategy.

=> s ((link or hyperlink?) and heuristic)/ti

L3 18 ((LINK OR HYPERLINK?) AND HEURISTIC)/TI

=> d 1-18 ti

L3 ANSWER 1 OF 18 INSPEC (C) 2006 IET on STN  
TI Animating 9-**link** brachiation with **heuristic** control

L3 ANSWER 2 OF 18 INSPEC (C) 2006 IET on STN  
TI A fast **heuristic** for genetic algorithms in **link**  
weight optimization

L3 ANSWER 3 OF 18 INSPEC (C) 2006 IET on STN  
TI A **heuristic** algorithm for **link** scheduling problems in  
packet radio networks

L3 ANSWER 4 OF 18 INSPEC (C) 2006 IET on STN  
TI Improvement of QoS using **heuristic** approach for satellite  
**link** expansion

L3 ANSWER 5 OF 18 INSPEC (C) 2006 IET on STN  
TI **Heuristic** solutions for satellite **link** expansion

L3 ANSWER 6 OF 18 INSPEC (C) 2006 IET on STN  
TI A **heuristic** approach to satellite **link** capacity  
planning applied in mobile networks

L3 ANSWER 7 OF 18 INSPEC (C) 2006 IET on STN  
TI Finding combined L1 and **link** metric shortest paths in the  
presence of orthogonal obstacles: a **heuristic** approach

L3 ANSWER 8 OF 18 INSPEC (C) 2006 IET on STN  
TI **Heuristic** approach to dynamic motion planning for multi-  
**link** planar manipulators in a sparse, time varying environment

L3 ANSWER 9 OF 18 INSPEC (C) 2006 IET on STN  
TI **Heuristic** technique for processor and **link** assignment  
in multicomputers

L3 ANSWER 10 OF 18 INSPEC (C) 2006 IET on STN  
TI A **heuristic** method of **link** reliability assignment for  
maximal reliability

L3 ANSWER 11 OF 18 INSPEC (C) 2006 IET on STN  
TI **Heuristic** modeling: the missing or moot **link** to  
horizontal decision support systems

L3 ANSWER 12 OF 18 INSPEC (C) 2006 IET on STN  
TI A nonlinear programming **heuristic** for computing optimal  
**link** capacities in a multihour alternate routing communications  
network

L3 ANSWER 13 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI **Heuristic** solutions for satellite **link** expansion.

L3 ANSWER 14 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI Finding combined L1 and **link** metric shortest paths in the  
presence of orthogonal obstacles: A **heuristic** approach.

L3 ANSWER 15 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI **Heuristic** approach to dynamic motion planning for multi-  
**link** planar manipulators in a Sparse, time varying environment.

L3 ANSWER 16 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI **Heuristic** technique for processor and **link** assignment

in multicomputers.

L3 ANSWER 17 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI **Heuristic** method of **link** reliability assignment for  
maximal reliability.

L3 ANSWER 18 OF 18 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI NONLINEAR PROGRAMMING **HEURISTIC** FOR COMPUTING OPTIMAL  
**LINK** CAPACITIES IN A MULTI-HOUR ALTERNATE ROUTING COMMUNICATIONS  
NETWORK.

=> d ab 1-12

L3 ANSWER 1 OF 18 INSPEC (C) 2006 IET on STN  
AB Brachiation is an extremely unstable and under-actuated system. This  
paper explores a physically-based animation system, a heuristic control,  
on a complex nine-link model to animate brachiation. The heuristic  
control contains three schemes, namely phase heuristic control,  
final-target heuristic control and phase-final-target heuristic control.  
The effectiveness of the three heuristic control paradigms has been  
exemplified. Experimental results have demonstrated that the  
phase-final-target heuristic control would be a more sophisticated  
decision for generating convincing brachiation animation

L3 ANSWER 2 OF 18 INSPEC (C) 2006 IET on STN  
AB Genetic algorithms are a useful tool for link weight optimization in  
intradomain traffic engineering where the maximum link load is to be  
minimized. As a local heuristic, the weight of the maximum loaded link is  
increased to speed up the search for a near-optimal solution. We show  
that implementing this heuristic as directed mutation outperforms an  
implementation as an inner loop in both quality of the result and number  
of calls to the objective function when used together with caching.  
Optimal mutation rates result in surprisingly high cache hit ratios

L3 ANSWER 3 OF 18 INSPEC (C) 2006 IET on STN  
AB In a packet radio network such as an ad-hoc network and a large scale  
communication network, packets are transmitted from source nodes to  
destinations by going through several nodes on routes connecting them,  
because each node usually does not have a direct link to every node in  
the network. To maximize the usability in the network, the problems of  
selecting a transmission route for each connection request and of  
scheduling the link activations such that the total transmission time is  
minimized, must be solved. This paper presents a four-stage heuristic  
algorithm for the link scheduling problem (LSP) in a packet radio  
network, called MIPS-LSP, a Minimal-state Processing Search algorithm for  
LSP. It is assumed that every link activation in the network is  
synchronously controlled by a single clock with a fixed time interval  
called a time slot. The first stage generates a link compatibility graph  
to represent the conflicts between links when activated at the same time  
slot. The second stage of MIPS-LSP computes the lower bound on the number  
of time slots for a given LSP instance. The third stage gives the initial  
state for search by a greedy method. The last stage iteratively searches  
a solution by a minimal-state evolution method. The performance of the  
algorithm is verified through extensive simulations using instances with  
up to 1,000 nodes

L3 ANSWER 4 OF 18 INSPEC (C) 2006 IET on STN  
AB At first the heuristic algorithm for optimal sizing of N satellite  
capacity types (on LES side of link) is compared with algorithm based on  
exact approach. In all numerical test-examples for mobile network with  
predicted traffic demands the best possible result is achieved. After  
that the heuristic is tested through the same test-examples as before,  
but using various limitations for capacity state values. Only if we apply

adequate heuristic approach we can ensure both, significant improvement of QoS (Quality of Service) for capacity availability and minimal capacity expansion cost. It means that our heuristic approach can be successfully applied to short-term or medium-term satellite network planning with finite number of discrete time periods

L3 ANSWER 5 OF 18 INSPEC (C) 2006 IET on STN

AB First, the heuristic algorithm for optimal sizing of N satellite capacity types, on the LES (land Earth station) side of the link, is compared with an algorithm based on an exact approach. In all numerical test-examples for a mobile network with predicted traffic demands, the best possible result is achieved. Next, we test some heuristic options using various limitations for capacity state values. Only if we apply an adequate heuristic option can we ensure both significant improvement of QoS (quality of service) for capacity availability and minimal capacity expansion cost. It means that our heuristic approach can be successfully applied to short-term or medium-term satellite network planning with a finite number of discrete time periods

L3 ANSWER 6 OF 18 INSPEC (C) 2006 IET on STN

AB Taking into account the continuous increase of traffic demands, it is necessary to increase satellite link capacity rationally. An efficient algorithm for sizing of N satellite links in mobile networks during exploitation is being developed, minimizing the total expansion cost. Capacity shortages are allowed so the problem is denoted as CEPS (Capacity Expansion Problem with Shortages). Using a network flow approach, the paper develops all possible expansion solutions for SPEP (Single Period Expansion Problem) and properties of extreme point solution are identified. The extreme flow theory enables separation of these extreme flows which can be a part of an optimal expansion solution from those which cannot. Such a heuristic approach enables the optimal result, using significantly less effort in programming and algorithm development. Our heuristic algorithm is compared with an algorithm based on an exact approach through many numerical examples. It is obvious that it is very effective, providing an optimal result with reasonable effort. The algorithm can be applied to short- or medium-term satellite network planning with a finite number of discrete time periods

L3 ANSWER 7 OF 18 INSPEC (C) 2006 IET on STN

AB This paper presents new heuristic search algorithms for searching combined rectilinear (L1) and link metric shortest paths in the presence of orthogonal obstacles. The Guided Minimum Detour (GMD) algorithm for L1 metric combines the best features of maze-running algorithms and line-search algorithms. The Line-by-Line Guided Minimum Detour (LGMD) algorithm for L1 metric is a modification of the GMD algorithm that improves on efficiency using line-by-line extensions. Our GMD and LGMD algorithms always find a rectilinear shortest path using the guided A\* search method without constructing a connection graph that contains shortest paths; the GMD and the LGMD algorithms can be implemented in  $O(m+e \log e+N \log N)$  and  $O(e \log e+N \log N)$  time, respectively, and  $o(e+N)$  space, where m is the total number of searched nodes, e is the number of boundary sides of obstacles, and N is the total number of searched line segments. Based on the LGMD algorithm, we consider not only the problems of finding a link metric shortest path in terms of the number of bends, but also the combined L1 metric and link metric shortest path in terms of the length and the number of bends

L3 ANSWER 8 OF 18 INSPEC (C) 2006 IET on STN

AB In this paper a fast and simple method to solve the motion planning problem for planar manipulators is suggested. This method is based on the development of a set of simple reactive behaviours, which allow the robot to move through a time-varying workspace. These simple reactive behaviours are activated by each link of the robot in response to the sensory information experienced as the robot moves through its workspace

in search of its goal. As a consequence of the robot's behaviours being reactive, the influence of obstacles on the robot's path is only local. However, there is a subset of problems for which sequential movement of links fails to guide the robot to its goal. This constitutes what we describe as a local minima problem. This problem has been solved by producing a behaviour which identifies local minima and defines an intermediate goal for the robot, in order to guide it out of the local minima. Results are given in the paper which illustrate the performance of this planner

L3 ANSWER 9 OF 18 INSPEC (C) 2006 IET on STN

AB A graph-based solution to the mapping problem using the simulated annealing optimization heuristic is developed. An automated two-phase mapping strategy is formulated: process annealing assigns parallel processes to processing nodes, and connection annealing schedules traffic connections on network data links so that interprocess communication conflicts are minimized. To evaluate the quality of generated mappings, cost functions suitable for simulated annealing that accurately quantify communications overhead are derived. Communication efficiency is formulated to measure the quality of assignments when the optimal mapping is unknown. The mapping scheme is implemented using the hypercube as a host architecture, and results for several image graphs are presented

L3 ANSWER 10 OF 18 INSPEC (C) 2006 IET on STN

AB Link reliability assignment is the problem of determining the reliability values to be assigned to the various links of a given network from a given set of link reliability values in order to achieve maximum reliability for the given network. Reliability to be maximized may be the s-t reliability or global reliability. The methods available for assigning reliability values to various links require the knowledge of the network reliability function and its several evaluations. The proposed method, which is heuristic in nature, does not require the reliability function and its evaluations; it only needs the network s-t paths (or trees for global reliability). Frequencies of occurrence of various links in paths of different cardinalities (or trees for global reliability) are found. An index, termed the importance index, which is a function of frequency of occurrence, number of paths and cardinalities of paths, is defined and determined for each link. Links are assigned reliability values in the same order as the order of importance index values. The proposed criterion has been tried on several networks. The network reliability obtained is maximal

L3 ANSWER 11 OF 18 INSPEC (C) 2006 IET on STN

AB Attempts to increase the strength and role of DSS models through heuristic guidance or intelligence capabilities, are appropriate to horizontal decision support systems. Interaction between end-users and the DSS built to solve semistructured problems using paradigms designed by human experts may be the key strength of such systems. It often leads to users becoming more actively involved in the computer-based problem-solving process. At the same time, computational analysis of data still remains a prime purpose for most organizations using computers. Thus, a blending of computational and heuristic modeling techniques may be the most appropriate focus for horizontal DSS creation efforts

L3 ANSWER 12 OF 18 INSPEC (C) 2006 IET on STN

AB Concerns the problem of determining the optimal number of communications channels in a telecommunications network. Traffic between pairs of nodes is assumed to vary with the time of day. Traffic between two nodes can flow over a one-link direct path or, if no direct channels are available, over a two-link alternate route. The problem is to compute the optimal number of channels on each link to minimize cost, subject to a constraint that enough trunks are present so that the probability of no idle channel does not exceed a specified amount. The mathematical formulation of this problem, known as the multihour engineering problem, yields an integer

nonlinear programming problem (NLP). Recursive quadratic programming, with exact penalty functions (EPF) line searches, is applied to solve the continuous NLP, and the special problem structure is used to provide a starting point and EPF parameter. A simple heuristic is used to obtain an integral number of channels satisfying desired blocking objectives. The method successfully solved a set of randomly generated test problems with up to 35 variables and 432 nonlinear constraints

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L1 1673 S (LINK OR HYPERLINK?) AND HEURISTIC  
L2 2 S L1 AND COMMAND  
L3 18 S ((LINK OR HYPERLINK?) AND HEURISTIC)/TI

=> s document and (link or hyperlink?) and heuristic

L4 8 DOCUMENT AND (LINK OR HYPERLINK?) AND HEURISTIC

=> d 1-8 ti ab

L4 ANSWER 1 OF 8 INSPEC (C) 2006 IET on STN  
TI Design and performance analysis of multimedia **document**  
retrieval strategies for networked video-on-reservation systems  
AB Video-on-reservation (VOR) systems serve as an attractive service  
providing scheme for multimedia network based services. As opposed to  
on-demand systems, in VOR, requests arrive in advance to their viewing  
times so that the network resources can be better utilized by carefully  
scheduling the resources. In this paper, we address the problem of  
optimizing the per user service cost and maximizing the number of  
requests that can be served by VOR systems. In order to provide a  
guaranteed QoS, generation of multicast trees with end-to-end delay  
constraints is recommended to minimize the costs. Since such an issue has  
been proved to be NP-complete, we propose two efficient and practically  
realizable **heuristic** algorithms, referred to as Source-Based  
Stream Scheduling (SBS) algorithm and Destination-Based Stream Scheduling  
(DBS) algorithm to solve the problem in polynomial time. Both SBS and DBS  
algorithms judiciously combine the concept of multicast routing and  
network caching, so that the copies of multimedia documents (MMDs) can be  
dynamically cached in the network. To analyze the trade-off between  
caching cost and transmission cost, we present a mathematical model and  
show that service cost can be minimized by adjusting offset time  
according to the network characteristics. When network resources (cache  
space and **link** bandwidth) are constraints, acceptance ratio can  
be improved significantly by combining video partitioning with SBS or  
DBS. We analyze and quantify the performance under several influencing  
parameters such as **link** availability, cache capacity and MMD  
availability. Our simulation results conclusively show that all the  
proposed algorithms can reduce the service cost, balance the network load  
and achieve a high acceptance ratio. [All rights reserved Elsevier]

L4 ANSWER 2 OF 8 INSPEC (C) 2006 IET on STN  
TI An efficient algorithm for designing optimal backbone topology for a  
communication networks  
AB In this paper, we present an algorithm to design an optimal backbone  
network topology, which incorporates some real life constraints of  
reliability. A network topology is a 1-FT topology if it can survive a  
single **link** failure. The problem a designer of a network faces  
is how to find a reliable network topology for a set of nodes with  
reduced total **link** cost. The problem is known to be NP-hard  
i.e. there exists no polynomial time algorithms to solve this problem.  
Thus, the problem can be formulated as combinatorial optimization



problem. Our algorithm, a variant of enumerative technique, tries to find out a 1-FT network topology with optimal total **link** cost when runs to its termination. The time complexity of our algorithm is  $O(N^4)$ . We have tested our algorithm for a wide range of data set and compared the outcome with the existing approach based on genetic algorithm (GA) and found that our algorithm outperforms the GA based approach in producing quality solution. This electronic **document** is a 'live' template. The various components of your paper [title, text, heads, etc.] are already defined on the style sheet, as illustrated by the portions given in this **document**

L4 ANSWER 3 OF 8 INSPEC (C) 2006 IET on STN

TI Conceptualizing documentation on the Web: an evaluation of different **heuristic**-based models for counting links between university Web sites

AB All known previous Web **link** studies have used the Web page as the primary indivisible source **document** for counting purposes. Arguments are presented to explain why this is not necessarily optimal and why other alternatives have the potential to produce better results. This is despite the fact that individual Web files are often the only choice if search engines are used for raw data and are the easiest basic Web unit to identify. The central issue is of defining the Web '**document**': that which should comprise the single indissoluble unit of coherent material. Three alternative heuristics are defined for the educational arena based upon the directory, the domain and the whole university site. These are then compared by implementing them on a set of 108 UK university institutional Web sites under the assumption that a more effective **heuristic** will tend to produce results that correlate more highly with institutional research productivity. It was discovered that the domain and directory models were able to successfully reduce the impact of anomalous linking behavior between pairs of Web sites, with the latter being the method of choice. Reasons are then given as to why a **document** model on its own cannot eliminate all anomalies in Web linking behavior. Finally, the results from all models give a clear confirmation of the very strong association between the research productivity of a UK university and the number of incoming links from its peers' Web sites

L4 ANSWER 4 OF 8 INSPEC (C) 2006 IET on STN

TI Helping the user to select a **link**

AB Links are among the distinguishing features of hypermedia and much research resolves around them. The authors survey issues related to links and address the problem of presenting links in such a way that the user can choose the most appropriate links. This issue is particularly important when a large number of links is available, a subject that has not received much attention yet but will become important as hypermedia **document** bases grow. They show that presentation of links can be dealt with by filtering out links that are not of interest to the user and by ranking the remaining nodes to simplify choice. After listing several **heuristic** approaches, they propose a method based on two quantitative measures of knowledge. This method can be used for rigorous numeric ranking of links on the basis of their contribution to the user's total knowledge

L4 ANSWER 5 OF 8 COMPENDEX COPYRIGHT 2006 EEI on STN

TI Design and performance analysis of multimedia **document** retrieval strategies for networked Video-on-Reservation systems.

AB Video-on-Reservation (VOR) systems serve as an attractive service providing scheme for multimedia network based services. As opposed to on-demand systems, in VOR, requests arrive in advance to their viewing times so that the network resources can be better utilized by carefully scheduling the resources. In this paper, we address the problem of optimizing the per user service cost and maximizing the number of requests that can be served by VOR systems. In order to provide a guaranteed QoS,

generation of multicast trees with end-to-end delay constraints is recommended to minimize the costs. Since such an issue has been proved to be NP-complete, we propose two efficient and practically realizable **heuristic** algorithms, referred to as Source-Based Stream Scheduling (SBS) algorithm and Destination-Based Stream Scheduling (DBS) algorithm to solve the problem in polynomial time. Both SBS and DBS algorithms judiciously combine the concept of multicast routing and network caching, so that the copies of Multimedia Documents (MMDs) can be dynamically cached in the network. To analyze the trade-off between caching cost and transmission cost, we present a mathematical model and show that service cost can be minimized by adjusting offset time according to the network characteristics. When network resources (cache space and **link** bandwidth) are constraints, acceptance ratio can be improved significantly by combining video partitioning with SBS or DBS. We analyze and quantify the performance under several influencing parameters such as **link** availability, cache capacity and MMD availability. Our simulation results conclusively show that all the proposed algorithms can reduce the service cost, balance the network load and achieve a high acceptance ratio. \$CPY 2005 Elsevier B.V. All rights reserved. 23 Refs.

L4 ANSWER 6 OF 8 COMPENDEX COPYRIGHT 2006 EEI on STN

TI Web Search by Feedback Learning.

AB There has been a paradigm shift in web searching from the content based searching to the connectivity based or more commonly known as **hyperlink** based (or simply **link** based) searching. But, both the content based as well as the **link** based approaches are totally dependent on the effectiveness of their "feature extraction" mechanisms, with no direct consideration to the preference of the user. In this work, a "user satisfaction" guided web search procedure is proposed. We calculate the importance weight of each **document** viewed by the user based on the feedback vector obtained from his actions. This **document** weight is then used to update the index database in such a way that the documents being consistently preferred go up the ranking, while the once being neglected go down. Our simulation results show a steady rise in the satisfaction levels of the modeled users as more and more learning goes into our system. One of the advantages of our technique of web search by feedback learning is that the performance of the search engine is no more dependent on the effectiveness of the **heuristic** used for characterization of the documents. Rather we go by "what the user wants" as our guideline. The second advantage is that our technique is equally valid for all types of data repositories - text documents, images, audio and video data, binary files and so on. This way we achieve higher search quality with data diversity. 13 Refs.

L4 ANSWER 7 OF 8 COMPENDEX COPYRIGHT 2006 EEI on STN

TI Conceptualizing documentation on the Web: An evaluation of different **heuristic**-based models for counting links between university web sites.

AB All known previous Web **link** studies have used the Web page as the primary indivisible source **document** for counting purposes. Arguments are presented to explain why this is not necessarily optimal and why other alternatives have the potential to produce better results. This is despite the fact that individual Web files are often the only choice if search engines are used for raw data and are the easiest basic Web unit to identify. The central issue is of defining the Web "**document**": that which should comprise the single indissoluble unit of coherent material. Three alternative heuristics are defined for the educational arena based upon the directory, the domain and the whole university site. These are then compared by implementing them on a set of 108 UK university institutional Web sites under the assumption that a more effective **heuristic** will tend to produce results that correlate more highly with institutional research productivity. It was discovered that the domain and directory models were able to successfully reduce the impact of anomalous linking behavior between pairs of Web sites, with the latter

being the method of choice. Reasons are then given as to why a **document** model on its own cannot eliminate all anomalies in Web linking behavior. Finally, the results from all models give a clear confirmation of the very strong association between the research productivity of a UK university and the number of incoming links from its peers' Web sites. 47 Refs.

L4 ANSWER 8 OF 8 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI 2001 International database engineering & applications symposium.  
AB The proceedings contains 39 papers from the 2001 International Database Engineering & Applications Symposium. The topics discussed include: query scheduling in multi query optimization; Web **document** searching using enhanced **hyperlink** semantics; design and implementation of Bitmap indices for scientific data; generation of external schemas in databases; static analysis of queries as a tool for static optimisation; algorithms for computing medians and other quantiles of disk-resident data; a data preparation framework based on a multidatabase language; virtual integration of temporal and conflicting information and cryptography and relational database management systems. (Edited abstract)

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L5 3 DOCUMENT AND (BROWSE? OR NAVIGAT?) AND (LINK OR HYPERLINK?) AND COMMAND

=> d 1-3 ti, ab

L5 ANSWER 1 OF 3 INSPEC (C) 2006 IET on STN  
TI Integrating framework for application programs with network services using a Web **browser**  
AB A simple and general framework for integrating application programs with control through a local Web **browser** is described. Based on our simple inter-process message function, application programs are driven from an external process by means of **command** messages, which can also be prepared in a script file. A message dispatcher program sends these messages to the target application as a helper application to a Web **browser** when the user clicks on a **hyperlink** in the associated Web **document**. Our method also serves as a pluggable extension module for an application program by dynamic linking. A prototype system was implemented on our molecular structure viewer program, MOSBY, which successfully featured an extension module for the docking study of molecular fragments from a Web site. Our method is also applicable for wide range of network computations for private data processing using a Web **browser**

L5 ANSWER 2 OF 3 INSPEC (C) 2006 IET on STN  
TI Delivering instruction on the World Wide Web: overview and basic design  
AB Development of the Internet has started a revolution in communication that is providing new opportunities for delivering instruction. The Internet began as communication links among computer facilities and departments, accessible only to those comfortable with **command** line language. It became user-friendly with the development of **hyperlinking** on the World Wide Web, enabling one **document** to contain pointers to and from many others. Web **browsers** were

soon developed that supported display of high quality images, animation, videos, and audio. These graphical **browsers** opened the door to delivery of multimedia anywhere in the world. The paper presents a brief history of the Internet and the Web, describes benefits and disadvantages of the Web for instructional programs, and provides some basic WWW design recommendations, along with basic technical information useful in instructional design for Web-based learning

L5 ANSWER 3 OF 3 COMPENDEX COPYRIGHT 2006 EEI on STN  
TI Integrating framework for application programs with network services using a Web **Browser**.  
AB A simple and general framework for integrating application programs with control through a local Web **browser** is described. Based on our simple inter-process message function, application programs are driven from an external process by means of **command** messages, which can also be prepared in a script file. A message dispatcher program sends these messages to the target application as a helper-application to a Web **Browser** by clicking a hyper-link in the associated Web document. Our method also serves a pluggable extension-module for an application program by dynamic linking. A prototype system was implemented on our molecular structure viewer program, MOSBY, which successfully featured an extension-module for the docking study of molecular fragments from a web site. Our method is also applicable for wide range of network computations for private data processing using a Web **browser**. (Author abstract) 16 Refs.

=> d his

(FILE 'HOME' ENTERED AT 11:08:24 ON 02 APR 2006)

L1 FILE 'INSPEC, COMPENDEX' ENTERED AT 11:10:13 ON 02 APR 2006  
L2 1673 S (LINK OR HYPERLINK?) AND HEURISTIC  
L3 2 S L1 AND COMMAND  
L4 18 S ((LINK OR HYPERLINK?) AND HEURISTIC)/TI  
L5 8 S DOCUMENT AND (LINK OR HYPERLINK?) AND HEURISTIC  
3 S DOCUMENT AND (BROWSE? OR NAVIGAT?) AND (LINK OR HYPERLINK?) A  
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